

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
1	BRS	L1	1524	plant adj protein	USPAT	2003/12/30 08:14			0
2	BRS	L2	2548	soy adj protein	USPAT	2003/12/30 08:15			0
3	BRS	L3	2934	polylactide	USPAT	2003/12/30 08:15			0
4	BRS	L4	2	(1 or 2) same 3	USPAT	2003/12/30 08:19			0
5	BRS	L5	163279	extrud\$4	USPAT	2003/12/30 08:19			0
6	BRS	L6	2970	zein	USPAT	2003/12/30 08:20			0
7	BRS	L7	4450	polylactic adj acid	USPAT	2003/12/30 08:20			0
8	BRS	L8	37	(1 or 2 or 6) same 7	USPAT	2003/12/30 08:35			0
9	BRS	L9	0	parts adj by adj weight	USPAT	2003/12/30 08:36			0
10	BRS	L10	307000	parts same weight	USPAT	2003/12/30 08:36			0
11	BRS	L11	0	8 same 10	USPAT	2003/12/30 08:36			0
12	BRS	L12	2510	compatibilizer	USPAT	2003/12/30 08:37			0
13	BRS	L13	111	compatibilizer same (oxazoline or polybutadiene)	USPAT	2003/12/30 08:38			0
14	BRS	L14	19404	cross-linking adj agent	USPAT	2003/12/30 08:39			0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
15	BRS	L15	128226	(glutaric adj dialdehyde) or epichlorohydrin or formaldehyde or glyoxal or (adipic adj anhydride) or (acetic adj anhydride) or (zinc adj sulfate)	USPAT	2003/12/30 08:41			0
16	BRS	L16	2214	14 same 15	USPAT	2003/12/30 08:41			0
17	BRS	L17	71739	plasticizer	USPAT	2003/12/30 08:42			0
18	BRS	L18	142389	glycerol or ( propylene adj glycol)	USPAT	2003/12/30 08:43			0
19	BRS	L19	5435	17 same 18	USPAT	2003/12/30 08:43			0
20	BRS	L20	2	(4 or 8) same (12 or 13 or 14 or 16 or 17or 19)	USPAT	2003/12/30 08:45			0

=> d his

(FILE 'HOME' ENTERED AT 08:48:12 ON 30 DEC 2003)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA'  
ENTERED AT

08:48:41 ON 30 DEC 2003

L1 40305 S PLANT PROTEIN  
L2 13612 S SOY PROTEIN  
L3 6514 S ZEIN  
L4 59729 S L1 OR L2 OR L3  
L5 6068 S POLYLACTIDE OR (POLACTIC ACID)  
L6 1 S L4 (P) L5  
L7 140534 S PARTS (P) WEIGHT  
L8 243 S COMPATIBILIZER (P) (OXAZOLINE OR POLYBUTADIENE)  
L9 6766 S CROSS-LINKING AGENT  
L10 255398 S (GLUTARIC DIALDEHYDE) OR (EPICHRHYDRIN) OR  
FORMALDEHYDE OR G  
L11 194 S L9 (P) L10  
L12 71828 S PLASTICIZER  
L13 287358 S GLYCEROL OR (PROPYLENE GLYCOL)  
L14 3509 S L12 (P) L13  
L15 0 S L6 (P) EXTRUD?  
L16 1 S L6 (P) (L8 OR L11 OR L12 OR L14)

=> log y

FILE 'MEDLINE' ENTERED AT 08:48:41 ON 30 DEC 2003

FILE 'CAPLUS' ENTERED AT 08:48:41 ON 30 DEC 2003  
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FILE 'AGRICOLA' ENTERED AT 08:48:41 ON 30 DEC 2003

=> s plant protein  
L1 40305 PLANT PROTEIN

=> s soy protein  
L2 13612 SOY PROTEIN

=> s zein  
L3 6514 ZEIN

=> s l1 or l2 or l3  
L4 59729 L1 OR L2 OR L3

=> s polylactide or (polactic acid)  
L5 6068 POLYLACTIDE OR (POLACTIC ACID)

=> s l4 (p) l5  
L6 1 L4 (P) L5

=> d l6 1 ibib abs

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2003:319466 CAPLUS  
DOCUMENT NUMBER: 138:322139  
TITLE: Biodegradable plant protein-lactic acid composites and related methods  
INVENTOR(S): Zhang, Jinwen; Mungara, Perminus; Jane, Jay-Lin  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U.S. Ser. No. 564,005.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003078323	A1	20030424	US 2001-976346	20011012
US 6632925	B1	20031014	US 2000-564005	20000503
PRIORITY APPLN. INFO.:			US 1999-132494P P	19990504
			US 2000-564005 A2	20000503

AB A non-toxic biodegradable \*\*\*plant\*\*\* \*\*\*protein\*\*\* composite comprises: 5 to 90 parts \*\*\*soy\*\*\* \*\*\*protein\*\*\* ; and 90 to 5 parts of a \*\*\*polylactide\*\*\* . The composite also preferably includes a compatibilizer, a crosslinking agent, and a plasticizer. The composites of this invention offer the advantages of being water resistant and biodegradable.

=> s parts (p) weight  
L7 140534 PARTS (P) WEIGHT

=> s compatibilizer (p) (oxazoline or polybutadiene)  
L8 243 COMPATIBILIZER (P) (OXAZOLINE OR POLYBUTADIENE)

=> s cross-linking agent  
L9 6766 CROSS-LINKING AGENT

=> s (glutaric dialdehyde) or (epichrohydrin) or formaldehyde or glyoxal or (adipic anhydride) or  
UNMATCHED LEFT PARENTHESIS 'OR ((ACETIC'  
The number of right parentheses in a query must be equal to the  
number of left parentheses.

=> s (glutaric dialdehyde) or (epichrohydrin) or formaldehyde or glyoxal or (adipic anhydride) or  
L10 255398 (GLUTARIC DIALDEHYDE) OR (EPICHRHYDRIN) OR FORMALDEHYDE OR  
GLYOXAL OR (ADIPIC ANHYDRIDE) OR (ACETIC ANHYDRIDE) OR (ZINC  
SULFATE)

=> s l9 (p) l10  
L11 194 L9 (P) L10

=> s plasticizer  
L12 71828 PLASTICIZER

=> s glycerol or (PROPYLENE GLYCOL)  
L13 287358 GLYCEROL OR (PROPYLENE GLYCOL)

=> s l12 (p) l13  
L14 3509 L12 (P) L13

=> d his

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L9 6766 S CROSS-LINKING AGENT  
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L11 194 S L9 (P) L10  
L12 71828 S PLASTICIZER  
L13 287358 S GLYCEROL OR (PROPYLENE GLYCOL)  
L14 3509 S L12 (P) L13

=> s l6 (p) extrud?  
L15 0 L6 (P) EXTRUD?

=> s l6 (p) (l8 or l11 or l12 or l14)  
L16 1 L6 (P) (L8 OR L11 OR L12 OR L14)

=> d his

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L14 3509 S L12 (P) L13  
L15 0 S L6 (P) EXTRUD?  
L16 1 S L6 (P) (L8 OR L11 OR L12 OR L14)

=> log y  
COST IN U.S. DOLLARS  
FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
69.31	69.52

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

CA SUBSCRIBER PRICE

ENTRY

SESSION

-0.65

-0.65

STN INTERNATIONAL LOGOFF AT 08:56:55 ON 30 DEC 2003